

(p) For Tier 2 and interim non-Tier 2 vehicles fueled by gasoline, diesel, natural gas, liquefied petroleum gas, or hydrogen, manufacturers may measure non-methane hydrocarbons (NMHC) in lieu of NMOG. Manufacturers must multiply NMHC measurements from gasoline vehicles by an adjustment factor of 1.04 before comparing with the NMOG standard to determine compliance with that standard. For vehicles fuel by natural gas, liquefied petroleum gas, hydrogen manufacturers must propose an adjustment factor to adjust NMHC results to properly represent NMOG results. Such factors must be based upon comparative testing of NMOG and NMHC emissions and be approved in advance by the Administrator.

[64 FR 23925, May 4, 1999, as amended at 65 FR 6853, Feb. 10, 2000; 65 FR 59969, Oct. 6, 2000; 66 FR 5190, Jan. 18, 2001; 66 FR 19309, Apr. 13, 2001; 70 FR 72928, Dec. 8, 2005; 76 FR 19874, Apr. 8, 2011]

§ 86.1810-09 General standards; increase in emissions; unsafe condition; waivers.

Section 86.1810-09 includes text that specifies requirements that differ from § 86.1810-01. Where a paragraph in § 86.1810-01 is identical and applicable to § 86.1810-09, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.1810-01.” Where a corresponding paragraph of § 86.1810-01 is not applicable, this is indicated by the statement “[Reserved].” This section applies to model year 2009 and later light-duty vehicles and light-duty trucks fueled by gasoline, diesel, methanol, ethanol, natural gas and liquefied petroleum gas fuels. This section also applies to MDPVs and complete heavy-duty vehicles certified according to the provisions of this subpart. Multi-fueled vehicles (including dual-fueled and flexible-fueled vehicles) must comply with all requirements established for each consumed fuel (or blend of fuels in the case of flexible fueled vehicles). The standards of this subpart apply to both certification and in-use vehicles unless otherwise indicated. This section also applies to hybrid electric vehicles and zero emission vehicles. Unless otherwise specified, requirements

and provisions of this subpart applicable to methanol fueled vehicles are also applicable to Tier 2 and interim non-Tier 2 ethanol fueled vehicles.

(a) through (e) [Reserved] For guidance see § 86.1810-01.

(f) *Altitude requirements.* (1) All emission standards apply at low altitude conditions and at high altitude conditions, except for the following standards, which apply only at low altitude conditions:

(i) The supplemental exhaust emission standards as described in § 86.1811-04(f);

(ii) The cold temperature NMHC emission standards as described in § 86.1811-10(g);

(iii) The evaporative emission standards as described in § 86.1811-09(e).

(2) For vehicles that comply with the cold temperature NMHC standards described in § 86.1811-10(g) and the CO₂, N₂O, and CH₄ exhaust emission standards described in § 86.1818-12, manufacturers must submit an engineering evaluation indicating that common calibration approaches are utilized at high altitudes. Any deviation from low altitude emission control practices must be included in the auxiliary emission control device (AECD) descriptions submitted at certification. Any AECD specific to high altitude must require engineering emission data for EPA evaluation to quantify any emission impact and validity of the AECD.

(g) through (p) [Reserved] For guidance see § 86.1810-01.

[72 FR 8562, Feb. 26, 2007, as amended at 75 FR 25686, May 7, 2010]

§ 86.1811-01 Emission standards for light-duty vehicles.

This section applies to 2001 and later model year light-duty vehicles fueled by gasoline, diesel, methanol, natural gas and liquefied petroleum gas fuels except as noted. Multi-fueled vehicles shall comply with all requirements established for each consumed fuel. For methanol fueled vehicles, references in this section to total hydrocarbons shall mean total hydrocarbon equivalents and references to non-methane hydrocarbons shall mean non-methane hydrocarbon equivalents. This section does not apply to 2004 and later model